

CHAPTER 1 - INTRODUCTION

INTRODUCTION TO THE CLEAN WATER NEEDS SURVEY

Overview

Throughout this document *SRF-eligible costs* refers to costs that are eligible under Title VI of the Clean Water Act.

The Clean Water Needs Survey (CWNS) is conducted to assess needed water pollution control facilities in all 50 States and the U.S.-held Territories. The CWNS includes detailed estimates of the capital costs eligible for funding under the State Revolving Fund (SRF) program established by the 1987 Amendments to the Clean Water Act (CWA), that is SRF-eligible costs. The CWNS includes publicly owned, municipal wastewater collection and treatment facilities, facilities for the control of combined sewer overflows (CSOs), activities designed to control storm water runoff, and activities designed to control nonpoint source (NPS) pollution. The CWNS, while supported by the interest of the states, is also required under section 205(a) of the CWA and section 516(b) of the Water Quality Act of 1987, which amended the CWA. The policies, procedures, and cost-estimating techniques from past Surveys have been reviewed and revised. The policies and procedures for the CWNS 2000 are contained in this document.

Past Surveys

States can also enter non-SRF-eligible capital and operating and maintenance cost information into the CWNS database.

The U.S. Environmental Protection Agency (EPA) conducted 11 biennial Needs Surveys on a facility-by-facility basis between 1972 and 1992. Before 1992, the Needs Survey focused on providing an estimate of needed publicly owned wastewater treatment works and an inventory of existing and proposed wastewater conveyance and treatment facilities in the United States. The 1992 Needs Survey represented a dramatic broadening of this focus, reflecting evolved funding opportunities under the SRF program. Models were used to estimate preliminary costs for urban storm water programs (Phase I), as well as agricultural and silvicultural NPS pollution control implementation costs because very little documentation of specific projects or costs was available from the States. Models were also used to supplement documented needs estimates for CSOs. Efforts to improve documentation of needs for small communities were also initiated.

During the 1996 CWNS, the States undertook a substantial effort to update facilities with old documentation data for needs (redocumentation) and to improve technical data, particularly flow and population. The effort initiated in 1992 to document small community needs was enhanced by expanding documentation criteria for small communities. Cost models for urban storm water programs and NPS pollution implementation costs were updated. As a part of the redocumentation effort, the list of CSO facilities was compared against National Pollutant Discharge Elimination System (NPDES) permits. In this way, the CWNS database was corrected to eliminate incorrectly identified CSOs and to accurately reflect CSO problems that had been solved. The 1996 CWNS also included a special survey to collect technical information on sanitary sewer systems and possible causes of sanitary sewer overflows (SSOs).

Background to CWNS 2000 Manual Development

The procedures for the CWNS 2000 were developed using a workgroup composed of 17 States as well as EPA staff.

Planning for the CWNS 2000 began in the spring of 1996. At that time (and running through the present), EPA solicited a number of States to volunteer their time and effort for a national CWNS Workgroup. The CWNS Workgroup is a mix of veteran and novice State CWNS Coordinators, EPA Regional Coordinators, and EPA Headquarters and contractor staff. The Workgroup's charge was to consider the priorities for the CWNS 2000 and to deliberate on definitions of survey objectives and the most reasonable means of collecting meaningful data from the States. Subcommittees (smaller task groups formed of Workgroup members) developed a charter and agenda that committed to addressing specific objectives approved by the Workgroup. The subcommittee reports constitute the major individual sections of the user instructions. They include

- Database Modernization
- Small Community Facilities and Alternative Documentation
- Wet Weather (CSOs, storm water, and SSOs)
- Nonpoint Source
- User Manual/Kick-off Meeting
- Data Quality Improvements

Each subcommittee worked on its topic area and recommended a course of action to the full Workgroup during monthly conference calls with EPA Headquarters and Regional staff. Decisions made by the full Workgroup affect the bulk of the data collection activities for the CWNS 2000. This manual was designed to consolidate and express those decisions in an instructional framework to guide the States and Territories through the survey data collection and data entry process.

The EPA Regions and a number of the States participated jointly in molding a federal requirement into a survey that will be useful and valuable to the States long after they complete the CWNS 2000. Participating States included

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|--------------|------------|------------------|-----------------|
| • Arizona | • Idaho | • Massachusetts | • New Jersey |
| • Colorado | • Illinois | • Michigan | • New York |
| • California | • Kentucky | • Ohio | • Texas |
| • Florida | • Missouri | • North Carolina | • West Virginia |
| • Hawaii | | | |

The basic methodology for conducting the CWNS 2000 will be for each State to update facility data using the CWNS database. *(Note: Although the new database provides substantially more flexibility for States to manage information related to NPS controls and municipal wastewater collection and treatment facilities, not all of the data could be transferred from the 1996 CWNS to the CWNS 2000 Database.)* States will also submit selected documentation to EPA. An EPA contractor will review cost estimates

entered by the States into the CWNS database and submitted documentation to achieve national consistency in the final results by applying uniform guidelines and validation techniques.

OBJECTIVES OF THE CLEAN WATER NEEDS SURVEY 2000

The major objectives of the 2000 CWNS are, in no particular order of priority, the following:

For consistency, it is important that your State report SRF-eligible costs based on Title VI of the CWA even though your State might elect to not fund some projects using the SRF program.

- Update documented costs for existing and new categories of needs (see Table 1-1) using the most current planning documents. This effort includes updating documentation for
 - Facilities with total needs greater than \$20 million (year 2000 dollar base) and documentation dated prior to January 1, 1994 and
 - **All** facilities with needs and documentation dated prior to January 1, 1990 regardless of the dollar amount of needs.
- Improve cost estimates for Category VI—*Storm water* and Category VII—*Nonpoint Source* by emphasizing reporting of documented needs.
- Review data transferred from the 1996 CWNS into the CWNS database. Correct/enter data from the 1996 CWNS that were not transferred automatically.
- Provide geographic data for all facilities (see Chapter 4 of the *CWNS 2000 Database User Guide*).
- Update the technical data based on the most current information (see Chapter 5 of the *CWNS 2000 Database User Guide*).
- Encourage State users to enter SRF-eligible costs that cannot be documented and non-SRF-eligible costs into the CWNS database as Separate State Estimates. Also, encourage States to enter operation and maintenance (O&M) costs into the CWNS database.

SCOPE OF THE CLEAN WATER NEEDS SURVEY 2000

Unlike past Surveys, States may enter needs from privately- and publicly-owned wastewater conveyance and treatment facilities into the CWNS database. Wastewater treatment facilities that serve military installations, national parks, industrial facilities, and publicly-owned potable water treatment plants are still excluded from the CWNS. In this Survey, States will be encouraged to enter SRF-eligible costs that do not meet the documentation requirements (described in Chapter 3) and non-SRF-eligible costs into the CWNS database as Separate State Estimates. *In the 1996 CWNS, Separate State Estimates were limited to SRF-eligible costs that did not meet the documentation requirements.* States can also enter O&M costs into the CWNS database. The CWNS will record the proposed total construction cost and technical data as of January 1, 2000, associated with every publicly owned wastewater treatment facility, existing and proposed, in the United States and its Territories for which adequate documentation

Table 1-1. Types of Wastewater Treatment and Water Pollution Control Projects Reported in the CWNS

Category I	Secondary Treatment
Category II	Advanced Treatment
Category III-A	Infiltration/Inflow Correction
Category III-B	Major Sewer System Rehabilitation
Category IV-A	New Collectors and Appurtenances
Category IV-B	New Interceptors and Appurtenances
Category V	Correction of Combined Sewer Overflows
Category VI	Storm Water Control
Category VII-A	NPS Agriculture - Cropland
Category VII-B	NPS Agriculture - Animals
Category VII-C	NPS Silviculture
Category VII-D	NPS Urban
Category VII-E	NPS Ground Water-Unknown Source
Category VII-F	NPS Marinas
Category VII-G	NPS Resource Extraction
Category VII-H	NPS Brownfields
Category VII-I	NPS Storage Tanks
Category VII-J	NPS Sanitary Landfills
Category VII-K	NPS Hydromodification
Category VIII	Confined Animals-Point Source
Category IX	Mining-Point Source

exists. In addition, certain other types of facilities may be included at the discretion of the EPA Regional Administrator. In future Surveys, EPA might analyze and report capital costs for privately owned systems as well as O&M costs for all systems.

Storm water costs resulting from Phase I or II of the storm water regulation are included in Category VI. NPS needs (Categories VII-A through VII-K) include SRF-eligible costs to develop and implement NPS management programs under sections 319 and 320 of the CWA. These costs can include compliance with NPS guidance issued pursuant to the Coastal Zone Act Reauthorization Amendments of 1990. During the 1996 CWNS, EPA relied upon modeled cost estimates for Categories VI, *Storm Water*; VII-A, *NPS Agriculture - Cropland*; VII-B, *NPS Agriculture - Animals*; and VII-C,

The EPA requests that States emphasize entering documented needs for Categories VI and VII to improve the reliability of cost estimates.

NPS Silviculture. To improve the reliability of these cost estimates, the EPA requests that States emphasize entering documented needs for Category VI and all of Category VII. If documented needs are incomplete or inconsistent, EPA may consider updating the storm water and nonpoint source models.

Category VIII, *Confined Animals-Point Source* and Category IX, *Mining - Point Source*, have been added to the CWNS database to improve the State's ability to more fully track pollution control efforts. Needs related to Categories VIII and IX would be recorded as Separate State Estimates since they are not SRF-eligible.

COMPUTER EQUIPMENT TESTING

All States should make sure that they have properly installed the CWNS database onto their computers using the installation instructions. Follow the installation instructions for obtaining technical assistance.

IF YOU HAVE QUESTIONS

Whether you are a new CWNS coordinator or an experienced veteran, you are likely to have questions or concerns that are not directly answered in this guidance or the companion *CWNS 2000 Database User Guide*. During the course of the Survey, the EPA will post answers to **CWNS 2000 - Frequently Asked Questions** at the Office of Wastewater Management web page, www.epa.gov/owm. If you still have questions or concerns, please contact your Regional CWNS Coordinator. Table 1-2 presents contact information for all Regional CWNS Coordinators. The Regional CWNS Coordinator will forward your question to EPA Headquarters staff for assistance if he or she is unable to answer your question.

Table 1-2. Regional CWNS Coordinator Contact Information

EPA Region	Contact	Phone	e-mail
1	John O'Connor	617-918-1518	oconnor.john@epa.gov
2	Ray Kvalheim	212-637-3782	kvalheim.ray@epa.gov
3	Magdalene Cunningham	215-814-5705	cunningham.magdalene@epa.gov
4	Ben Chen	404-562-9247	chen.ben@epa.gov
5	William Tansey	312-886-0125	tansey.william@epa.gov
6	Gene Wossum	214-665-7173	wossum.gene@epa.gov
	Susanne Mann	214-665-7108	mann.susanne@epa.gov
7	Kelly Beard-Tittone	913-551-7217	beard-tittone.kelly@epa.gov
8	Minnie Moore Adams	303-312-6624	adams.minnie@epa.gov
9	Loretta Vanegas	415-744-1946	vanegas.loretta@epa.gov
10	Rick Green	206-553-8504	green.richard@epa.gov